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DOCUMENT NUMBER: 138:353988

TITLE: Preparation of benzimidazoles and analogs and their use as protein kinase inhibitors

INVENTOR(S): Edwards, Michael Louis; Cox, Paul Joseph; Amendola, Shelley; Deprets, Stephanie Daniele; Gillespy, Timothy Alan; Edlin, Christopher David; Morley, Andrew David; Gardner, Charles J.; Pedgrift, Brian; Bouchard, Herve; Babin, Didier; Gauzy, Laurence; Le Brun, Alain; Majid, Tahir Nedeem; Reader, John C.; Payne, Lloyd J.; Khan, Nawaz M.; Cherry, Michael

PATENT ASSIGNEE(S): Aventis Pharmaceuticals Inc., USA

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CODEN: PIXXD2

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LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

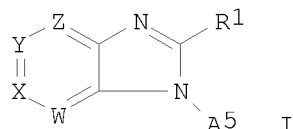
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003035065	A1	20030501	WO 2002-GB4763	20021024
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
FR 2831537	A1	20030502	FR 2001-13868	20011026
FR 2831537	B1	20080229		
CA 2465247	A1	20030501	CA 2002-2465247	20021024
AU 2002334217	A1	20030506	AU 2002-334217	20021024
AU 2002334217	B2	20080703		
US 20040048868	A1	20040311	US 2002-279834	20021024
US 6897208	B2	20050524		
EP 1441725	A1	20040804	EP 2002-801954	20021024
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
BR 2002013562	A	20040831	BR 2002-13562	20021024
JP 2005509633	T	20050414	JP 2003-537632	20021024
MX 2004003954	A	20041129	MX 2004-3954	20040426
US 20060014756	A1	20060119	US 2005-29064	20050104
PRIORITY APPLN. INFO.:			FR 2001-13868	A 20011026
			GB 2002-6893	A 20020322
			GB 2002-6895	A 20020322
			US 2002-395060P	P 20020711
			US 2002-395151P	P 20020711
			US 2002-279834	A1 20021024

WO 2002-GB4763

W 20021024

OTHER SOURCE(S):
GI

MARPAT 138:353988



AB The invention is directed to physiol. active benzimidazoles and analogs (shown as I; variables defined below; e.g. 2-(1H-indazol-3-yl)-1H-benzimidazole-5-carboxylic acid benzylamide) and compns. containing such compds., and their prodrugs, and pharmaceutically acceptable salts and solvates of such compds. and their prodrugs, as well as to novel I and to processes for their preparation. Such compds. and compns. have valuable pharmaceutical properties, in particular the ability to inhibit kinases. For I: X = C-R2 and W, Y and Z = CH or CR3; or W = CH, X = N, Y = CH or CR3, and Z = CH or CR3; or W = N, X = CH or CR2, Y = CH and CR3, and Z = CH or CR3; or W = N, X = CH or CR2, Y = N, and Z is CH or CR3; or W = N, X = CH or CR2, Y = CH or CR3, and Z = N; or W = N, X = N, Y = CH or CR3, and Z = CH or CR3. A5 = H or alkyl; R1 = optionally substituted aryl or heteroaryl; addnl. details are given in the claims. IC50 values for >200 I are tabulated for inhibition of KDR receptor tyrosine kinase. Particular I inhibit SYK activity with IC50's = 100 μ M to 0.1 nM. Particular I inhibit ITK activity with IC50's = 100 μ M to 1 μ M. I inhibit the increase in edema observed in a sensitized mouse ear following antigen exposure and inhibit mast cell activation and functional responses when given orally in a mouse model of passive cutaneous anaphylaxis. Methods of preparation are claimed and hundreds of example preps. of I and intermediates leading to them are included. For example, 20 mg 2-(1H-indazol-3-yl)-1H-benzimidazole-5-carboxylic acid benzylamide was prepared from 20 mg 2-(1H-indazol-3-yl)-1H-benzimidazole-5-carboxylic acid and benzylamine in DMF in the presence of HBTU followed by addition of N,N-diisopropylethylamine; the acid was prepared in several steps starting from 3-indazolecarboxylic acid and involving intermediates Me 3-indazolecarboxylate, (1H-indazol-3-yl)methanol and 1H-indazole-3-carboxaldehyde.

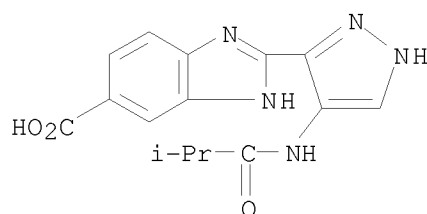
IT **518988-26-6P**, 2-(4-Isobutyrylamino-1H-pyrazol-3-yl)-1H-benzimidazole-5-carboxylic acid

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(drug candidate; preparation of benzimidazoles and analogs and their use as protein kinase inhibitors)

RN 518988-26-6 CAPLUS

CN 1H-Benzimidazole-6-carboxylic acid,
2-[4-[(2-methyl-1-oxopropyl)amino]-1H-pyrazol-3-yl]- (CA INDEX NAME)



IT **518988-25-5P**, 2-(4-Isobutyrylamino-1H-pyrazol-3-yl)-1H-benzimidazole-5-carboxylic acid benzylamide **518988-32-4P**, N-[3-(5,6-Dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]isobutyramide **518988-33-5P**, N-[3-(5,6-Dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-3-methylbutyramide **518988-34-6P**, N-[3-(5,6-Dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-2-phenylacetamide **518988-35-7P**, Cyclopropanecarboxylic acid [3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518988-36-8P**, Methoxyacetic acid [3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518988-37-9P**, Cyclopentanecarboxylic acid [3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518988-38-0P**, Trimethylacetic acid [3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518988-39-1P**, tert-Butylacetic acid [3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518988-40-4P**, Butanoic acid [3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518988-41-5P**, Isoxazole-5-carboxylic acid [3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518988-42-6P**, (S)-(+)-2-Methylbutanoic acid [3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518988-43-7P**, Cyclopropanecarboxylic acid [3-(5-ethyl-6-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518988-44-8P**, Piperidine-1-carboxylic acid [3-(6-chloro-5-methoxy-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518988-45-9P**, 3-[3-(6-Chloro-5-methoxy-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-1,1-dimethylurea **518988-46-0P**, Cyclopropanecarboxylic acid [3-(5-methoxy-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518988-47-1P**, Cyclopropanecarboxylic acid [3-(5-ethoxy-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518988-48-2P**, Cyclopropanecarboxylic acid [3-(5-fluoro-6-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518988-49-3P**, Cyclopropanecarboxylic acid [3-(5-trifluoromethoxy-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518988-50-6P**, Cyclopropanecarboxylic acid [3-(5-trifluoromethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518988-51-7P**, N-[3-(5-Trifluoromethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]isobutyramide **518988-52-8P**, Cyclopropanecarboxylic acid [3-(5-chloro-6-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518988-54-0P**, 3,5-Dimethylisoxazole-4-carboxylic acid [3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518988-55-1P**, N-[3-(5,6-Dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-

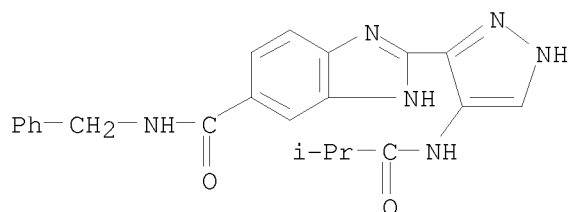
4-yl]acetamide **518988-56-2P**, Furan-3-carboxylic acid
[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide
518988-57-3P, N-[3-(5,6-Dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-4-methylbenzamide **518988-91-5P**,
N-[3-(5,6-Dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-2-morpholinoacetamide **518988-92-6P**,
2-Dimethylamino-N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]acetamide **518988-93-7P**,
N-[3-(5,6-Dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-2-piperidin-1-ylacetamide **518988-94-8P**,
N-[3-(5,6-Dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-2-(1H-1,2,3,4-tetrazol-1-yl)acetamide **518988-95-9P**,
N-[3-(5,6-Dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]isonicotinamide **518988-96-0P**, 2-Cyclopropyl-N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]acetamide **518988-97-1P**,
1-[3-(5,6-Dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-3-methylurea **518988-98-2P**, 1-[3-(5,6-Dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-3-isopropylurea **518988-99-3P**,
1-[3-(5,6-Dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-3-phenylurea **518989-00-9P**, 1-Benzyl-3-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]urea **518989-01-0P**, Cyclopropanecarboxylic acid
[3-(5-ethoxy-6-ethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518989-06-5P**, 4-Methylpiperazine-1-carboxylic acid
[3-(1,5,6,7-tetrahydro-1,3-diaza-s-indacen-2-yl)-1H-pyrazol-4-yl]amide **518989-08-7P**, 1,1-Dimethyl-3-[3-(1,5,6,7-tetrahydro-s-indacen-2-yl)-1H-pyrazol-4-yl]urea **518989-10-1P**, Cyclopropanecarboxylic acid
[3-(6-ethoxy-5-fluoro-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518989-13-4P**, Tetrahydropyran-4-carboxylic acid
[3-(6-ethoxy-5-fluoro-1H-benzimidazol-2-yl)-1H-pyrazole-4-yl]amide **518989-15-6P**, Morpholine-4-carboxylic acid
[3-(6-ethoxy-5-fluoro-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518989-17-8P**, Piperidine-4-carboxylic acid
[3-(6-ethoxy-5-fluoro-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518989-19-0P**, 3-[3-(6-Ethoxy-5-fluoro-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-1,1-diethylurea **518989-24-7P**,
3-[3-(5-Difluoromethoxy-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-1,1-diethylurea **518989-26-9P**, Piperidine-1-carboxylic acid
[3-(5-difluoromethoxy-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518989-28-1P**, Cyclopropanecarboxylic acid
[3-(6-chloro-5-methoxy-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518989-29-2P**, Cyclopropanecarboxylic acid
[3-(1,5,6,7-tetrahydro-1,3-diaza-s-indacen-2-yl)-1H-pyrazol-4-yl]amide **518989-30-5P**, Morpholine-4-carboxylic acid
[3-(1,5,6,7-tetrahydro-1,3-diaza-s-indacen-2-yl)-1H-pyrazol-4-yl]amide **518989-31-6P**, Piperidine-1-carboxylic acid
[3-(5-methoxy-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518989-32-7P**, 3-[3-(5-Methoxy-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-1,1-dimethylurea **518989-33-8P**, Piperidine-1-carboxylic acid
[3-(5-ethyl-6-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518989-34-9P**, 3-[3-(5-Fluoro-6-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-1,1-dimethylurea **518989-35-0P**,
Morpholine-4-carboxylic acid [3-(5-trifluoromethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518989-41-8P**, Morpholine-4-carboxylic acid
[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide

518989-42-9P, Piperidine-1-carboxylic acid
[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide
518989-45-2P, 3-[3-(5,6-Dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-1,1-dimethylurea **518989-47-4P**,
1-Cyclopropyl-3-[3-(5-ethyl-6-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]urea **518989-48-5P**, 1-[3-(5-Ethyl-6-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-3-methylurea **518989-49-6P**,
4-Methylpiperazine-1-carboxylic acid
[3-(5-ethyl-6-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide
518989-50-9P, Piperidine-1-carboxylic acid
[3-(5-fluoro-6-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide
518989-51-0P, 1-[3-(5-Fluoro-6-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-3-methylurea **518989-52-1P**,
Morpholine-4-carboxylic acid [3-(5-fluoro-6-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide **518989-53-2P**,
4-Methylpiperazine-1-carboxylic acid
[3-(5-fluoro-6-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide
518989-54-3P, 1-Methyl-3-[3-(5-trifluoromethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]urea **518989-55-4P**,
1-[3-(5-Chloro-6-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-3-methylurea **518989-56-5P**, 4-Methylpiperazine-1-carboxylic acid
[3-(5-chloro-6-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide
518989-57-6P, 1-tert-Butyl-3-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]urea **518989-58-7P**,
1-[3-(5,6-Dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-3-ethylurea
518989-59-8P, 4-Methylpiperazine-1-carboxylic acid
[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide
518989-60-1P, 1-Cyclopropyl-3-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]urea **518989-61-2P**,
3-[3-(5,6-Dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-1,1-diethylurea
518989-62-3P, 1-[3-(5,6-Dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-3-isobutylurea **518989-63-4P**,
1-Cyclopropylmethyl-3-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]urea **518990-82-4P**, Furan-3-carboxylic acid
[3-(5-chloro-6-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]amide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of benzimidazoles and analogs and their use as protein kinase inhibitors)

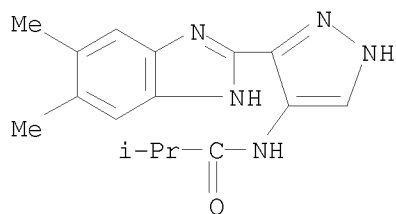
RN 518988-25-5 CAPLUS

CN 1H-Benzimidazole-6-carboxamide, 2-[4-[(2-methyl-1-oxopropyl)amino]-1H-pyrazol-3-yl]-N-(phenylmethyl)- (CA INDEX NAME)



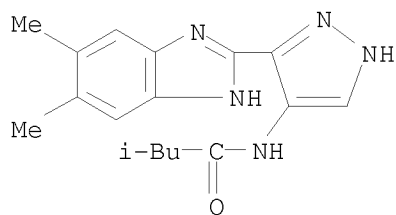
RN 518988-32-4 CAPLUS

CN Propanamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-2-methyl- (CA INDEX NAME)



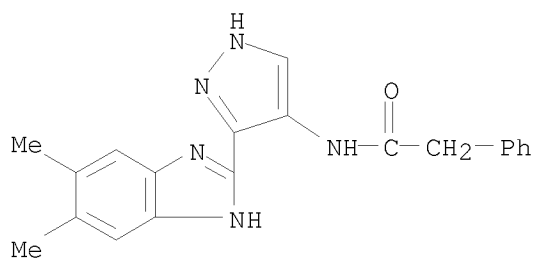
RN 518988-33-5 CAPLUS

CN Butanamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-3-methyl- (CA INDEX NAME)



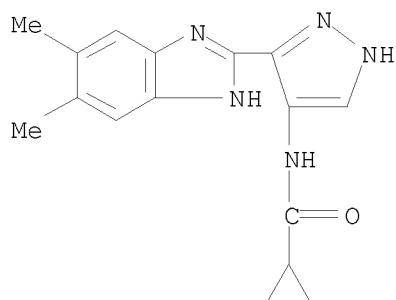
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CN Benzeneacetamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



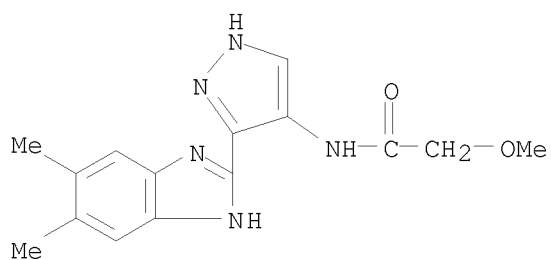
RN 518988-35-7 CAPLUS

CN Cyclopropanecarboxamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



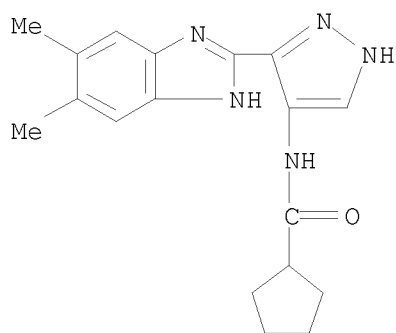
RN 518988-36-8 CAPLUS

CN Acetamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-2-methoxy- (CA INDEX NAME)



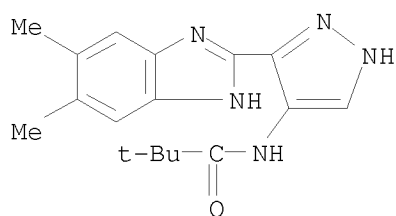
RN 518988-37-9 CAPLUS

CN Cyclopentanecarboxamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



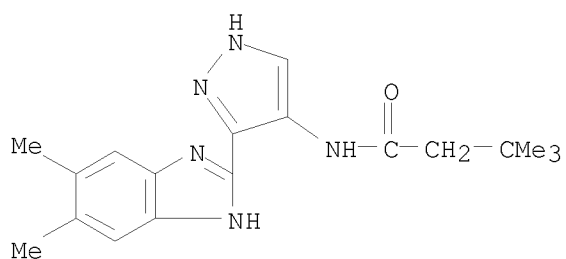
RN 518988-38-0 CAPLUS

CN Propanamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-2,2-dimethyl- (CA INDEX NAME)



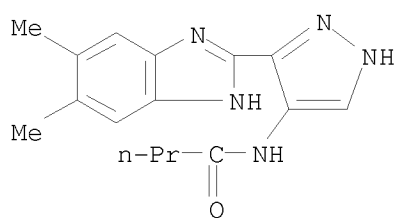
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CN Butanamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-3,3-dimethyl- (CA INDEX NAME)



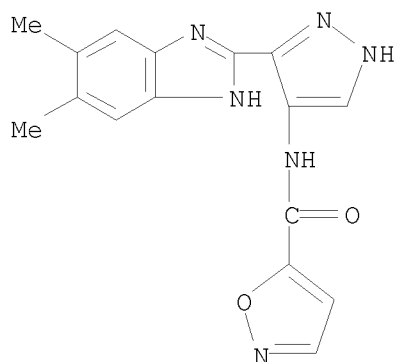
RN 518988-40-4 CAPLUS

CN Butanamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



RN 518988-41-5 CAPLUS

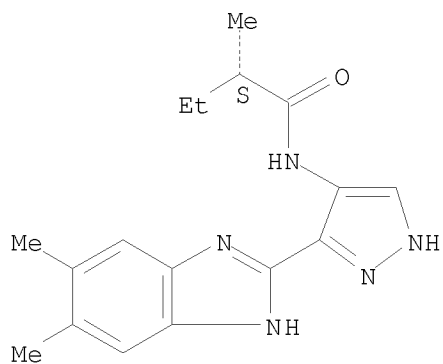
CN 5-Isoxazolecarboxamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



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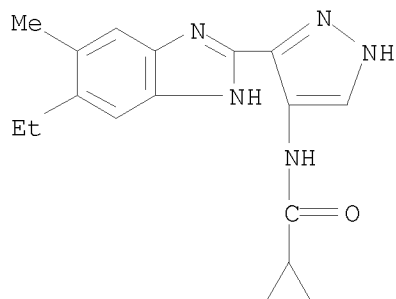
CN Butanamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-2-methyl-, (2S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



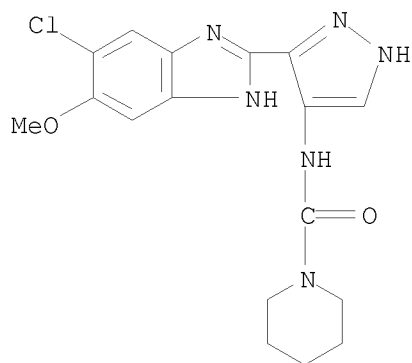
RN 518988-43-7 CAPLUS

CN Cyclopropanecarboxamide, N-[3-(6-ethyl-5-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



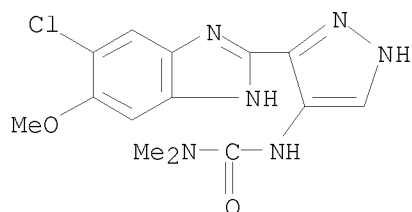
RN 518988-44-8 CAPLUS

CN 1-Piperidinecarboxamide, N-[3-(6-chloro-5-methoxy-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



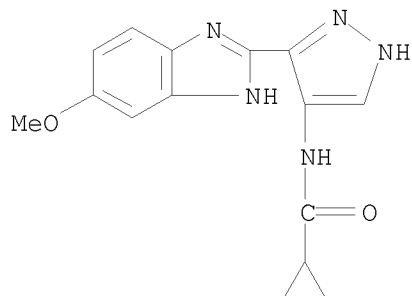
RN 518988-45-9 CAPLUS

CN Urea, N'-[3-(6-chloro-5-methoxy-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-N,N-dimethyl- (CA INDEX NAME)



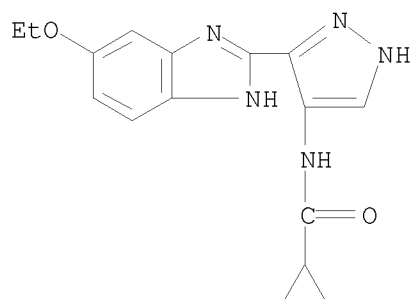
RN 518988-46-0 CAPLUS

CN Cyclopropanecarboxamide, N-[3-(6-methoxy-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



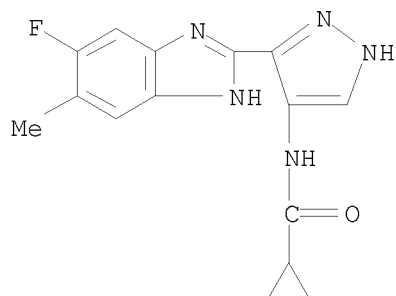
RN 518988-47-1 CAPLUS

CN Cyclopropanecarboxamide, N-[3-(6-ethoxy-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



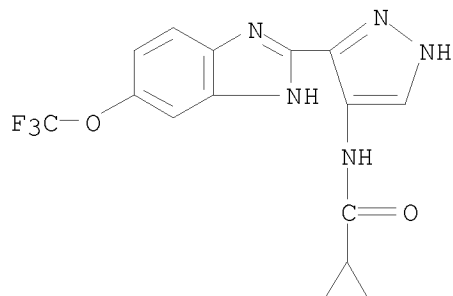
RN 518988-48-2 CAPLUS

CN Cyclopropanecarboxamide, N-[3-(6-fluoro-5-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



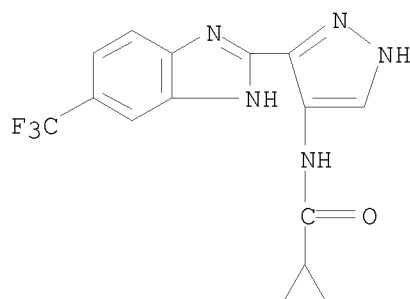
RN 518988-49-3 CAPLUS

CN Cyclopropanecarboxamide, N-[3-[6-(trifluoromethoxy)-1H-benzimidazol-2-yl]-1H-pyrazol-4-yl]- (CA INDEX NAME)



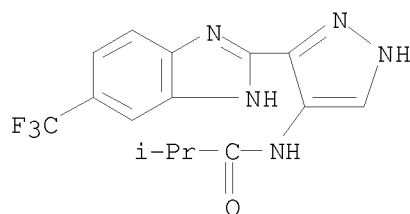
RN 518988-50-6 CAPLUS

CN Cyclopropanecarboxamide, N-[3-[6-(trifluoromethyl)-1H-benzimidazol-2-yl]-1H-pyrazol-4-yl]- (CA INDEX NAME)



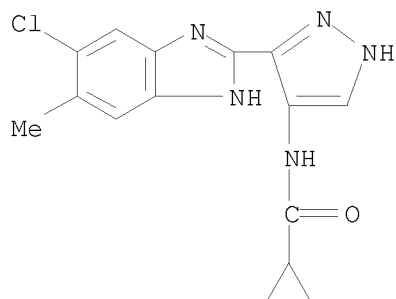
RN 518988-51-7 CAPLUS

CN Propanamide, 2-methyl-N-[3-[6-(trifluoromethyl)-1H-benzimidazol-2-yl]-1H-pyrazol-4-yl]- (CA INDEX NAME)



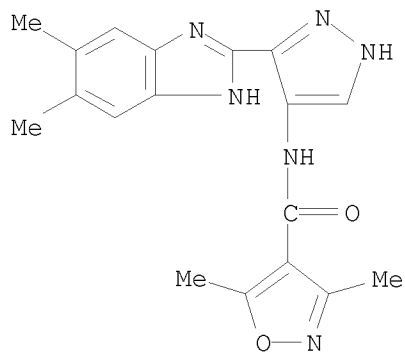
RN 518988-52-8 CAPLUS

CN Cyclopropanecarboxamide, N-[3-(6-chloro-5-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



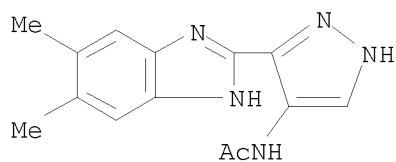
RN 518988-54-0 CAPLUS

CN 4-Isioxazolecarboxamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-3,5-dimethyl- (CA INDEX NAME)



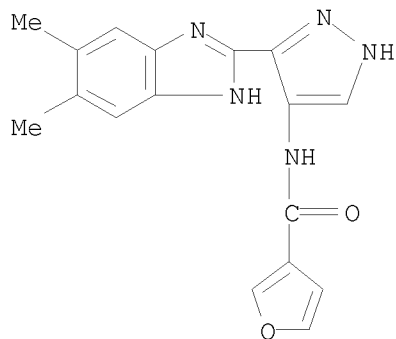
RN 518988-55-1 CAPLUS

CN Acetamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



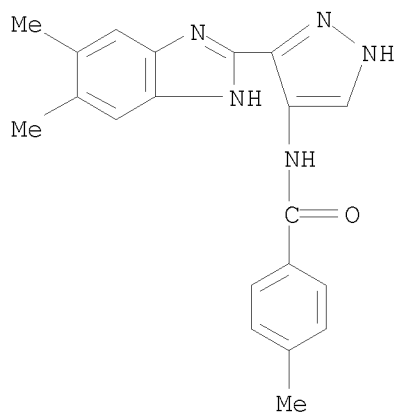
RN 518988-56-2 CAPLUS

CN 3-Furancarboxamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



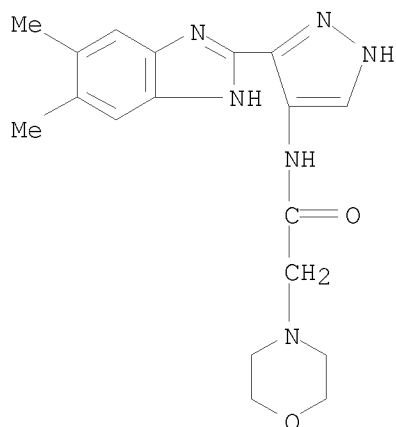
RN 518988-57-3 CAPLUS

CN Benzamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-4-methyl- (CA INDEX NAME)



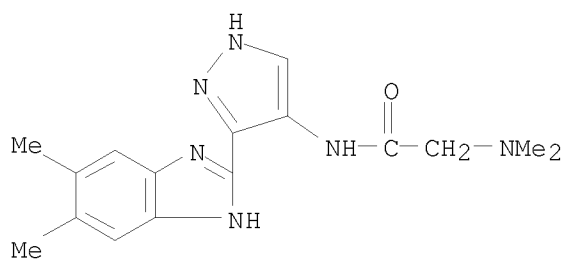
RN 518988-91-5 CAPLUS

CN 4-Morpholineacetamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



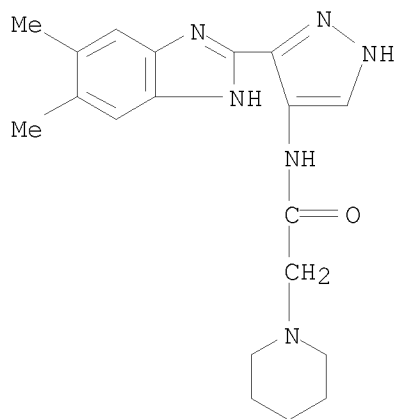
RN 518988-92-6 CAPLUS

CN Acetamide, 2-(dimethylamino)-N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



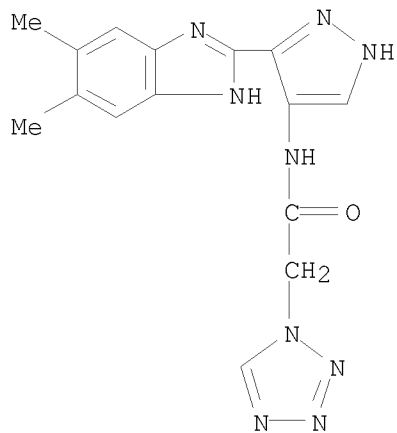
RN 518988-93-7 CAPLUS

CN 1-Piperidineacetamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



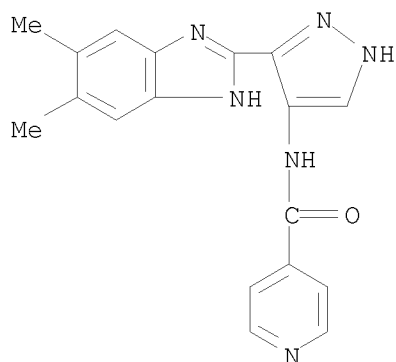
RN 518988-94-8 CAPLUS

CN 1H-Tetrazole-1-acetamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



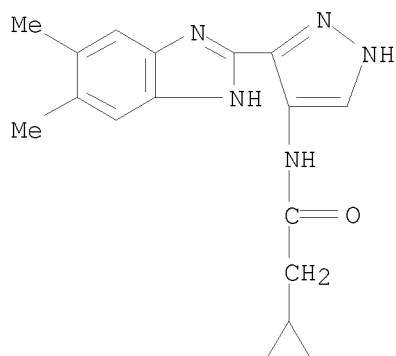
RN 518988-95-9 CAPLUS

CN 4-Pyridinecarboxamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



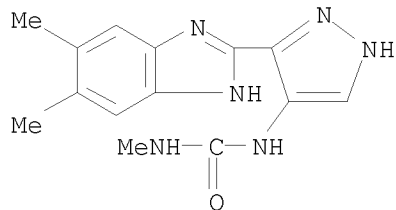
RN 518988-96-0 CAPLUS

CN Cyclopropaneacetamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



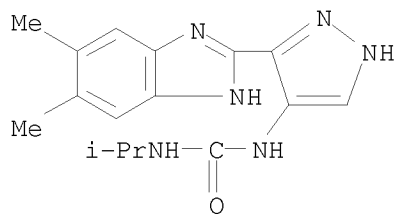
RN 518988-97-1 CAPLUS

CN Urea, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-N'-methyl- (9CI) (CA INDEX NAME)



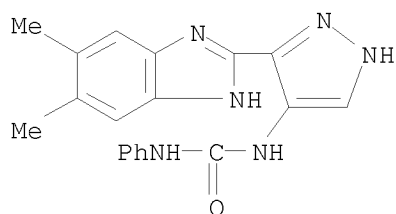
RN 518988-98-2 CAPLUS

CN Urea, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-N'-(1-methylethyl)- (CA INDEX NAME)



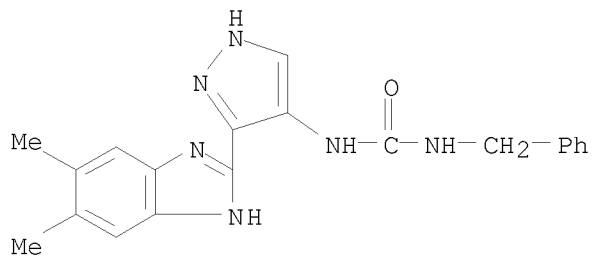
RN 518988-99-3 CAPLUS

CN Urea, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-N'-phenyl-
(CA INDEX NAME)



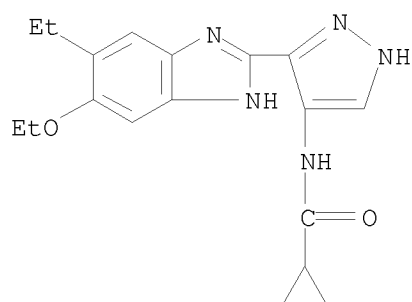
RN 518989-00-9 CAPLUS

CN Urea, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-N'-
(phenylmethyl)- (CA INDEX NAME)



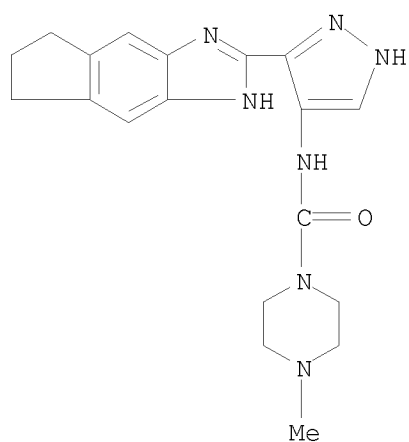
RN 518989-01-0 CAPLUS

CN Cyclopropanecarboxamide, N-[3-(6-ethoxy-5-ethyl-1H-benzimidazol-2-yl)-1H-
pyrazol-4-yl]- (CA INDEX NAME)



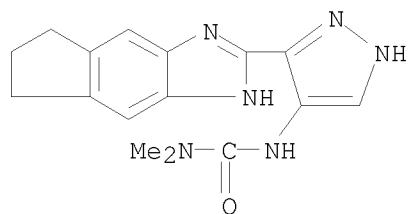
RN 518989-06-5 CAPLUS

CN 1-Piperazinecarboxamide, 4-methyl-N-[3-(1,5,6,7-tetrahydroindeno[5,6-d]imidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



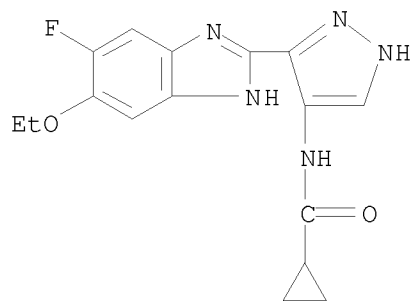
RN 518989-08-7 CAPLUS

CN Urea, N,N-dimethyl-N'-[3-(1,5,6,7-tetrahydroindeno[5,6-d]imidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



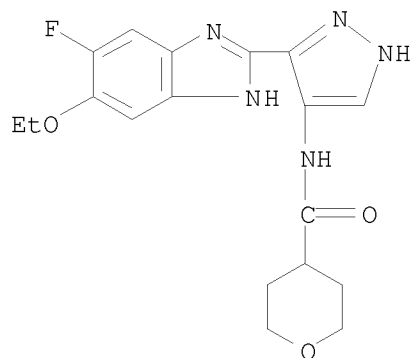
RN 518989-10-1 CAPLUS

CN Cyclopropanecarboxamide, N-[3-(5-ethoxy-6-fluoro-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



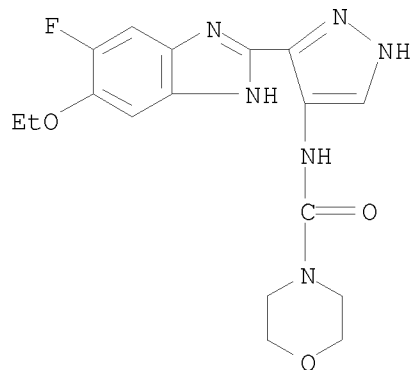
RN 518989-13-4 CAPLUS

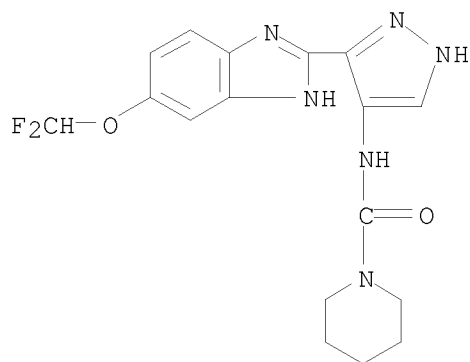
CN 2H-Pyran-4-carboxamide, N-[3-(5-ethoxy-6-fluoro-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]tetrahydro- (CA INDEX NAME)



RN 518989-15-6 CAPLUS

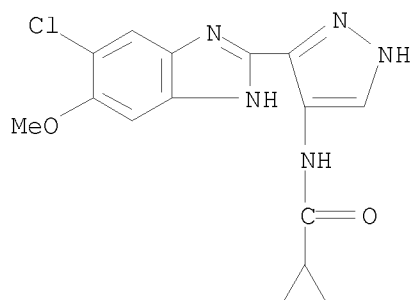
CN 4-Morpholinecarboxamide, N-[3-(5-ethoxy-6-fluoro-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)





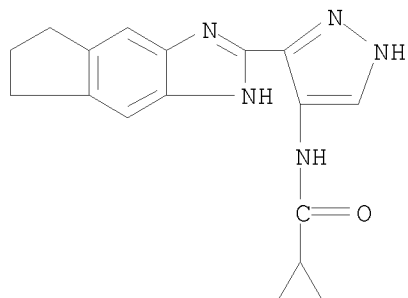
RN 518989-28-1 CAPLUS

CN Cyclopropanecarboxamide, N-[3-(6-chloro-5-methoxy-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



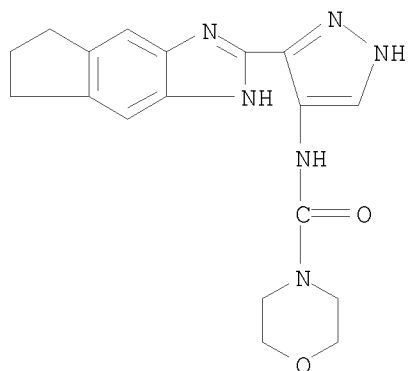
RN 518989-29-2 CAPLUS

CN Cyclopropanecarboxamide, N-[3-(1,5,6,7-tetrahydroindeno[5,6-d]imidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



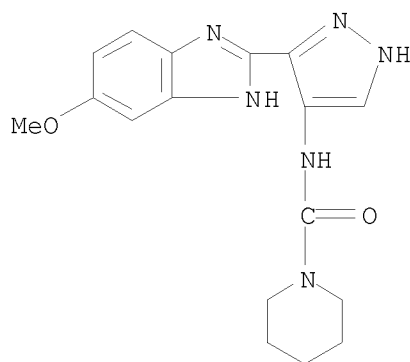
RN 518989-30-5 CAPLUS

CN 4-Morpholinecarboxamide, N-[3-(1,5,6,7-tetrahydroindeno[5,6-d]imidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



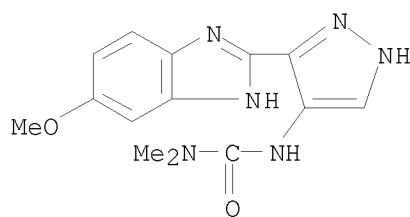
RN 518989-31-6 CAPLUS

CN 1-Piperidinecarboxamide, N-[3-(6-methoxy-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



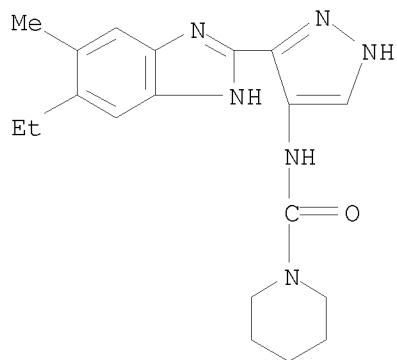
RN 518989-32-7 CAPLUS

CN Urea, N'-[3-(6-methoxy-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-N,N-dimethyl- (CA INDEX NAME)



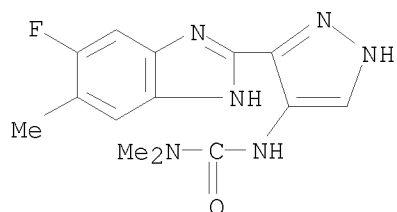
RN 518989-33-8 CAPLUS

CN 1-Piperidinecarboxamide, N-[3-(6-ethyl-5-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



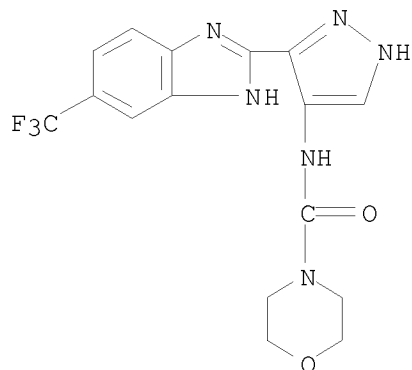
RN 518989-34-9 CAPLUS

CN Urea, N'-[3-(6-fluoro-5-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-N,N-dimethyl- (CA INDEX NAME)



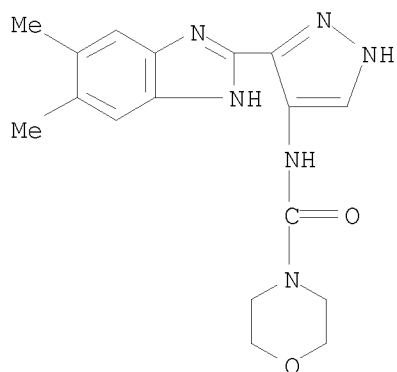
RN 518989-35-0 CAPLUS

CN 4-Morpholinecarboxamide, N-[3-[6-(trifluoromethyl)-1H-benzimidazol-2-yl]-1H-pyrazol-4-yl]- (CA INDEX NAME)



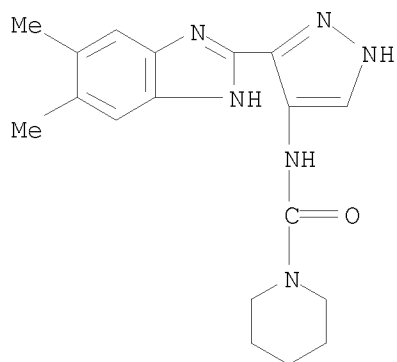
RN 518989-41-8 CAPLUS

CN 4-Morpholinecarboxamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



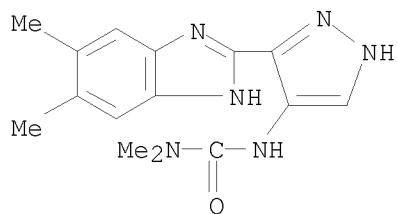
RN 518989-42-9 CAPLUS

CN 1-Piperidinecarboxamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



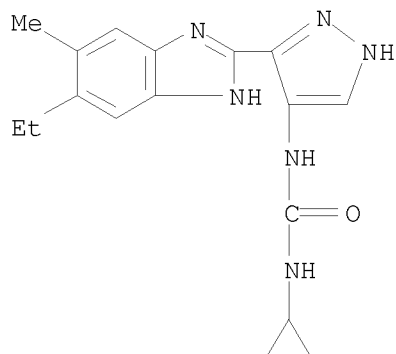
RN 518989-45-2 CAPLUS

CN Urea, N'-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-N,N-dimethyl- (CA INDEX NAME)



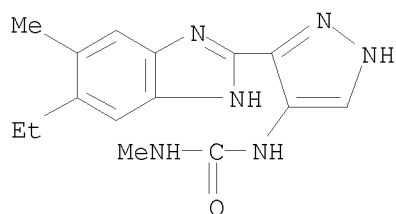
RN 518989-47-4 CAPLUS

CN Urea, N-cyclopropyl-N'-[3-(6-ethyl-5-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



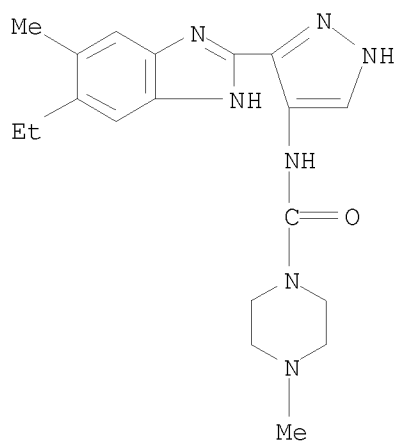
RN 518989-48-5 CAPLUS

CN Urea, N-[3-(6-ethyl-5-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-N'-methyl- (CA INDEX NAME)



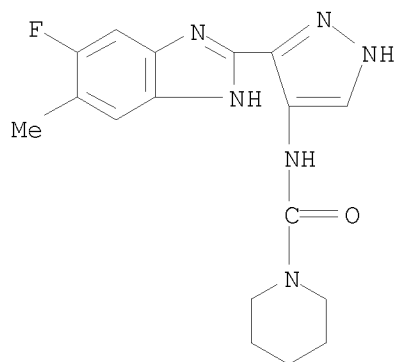
RN 518989-49-6 CAPLUS

CN 1-Piperazinecarboxamide, N-[3-(6-ethyl-5-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-4-methyl- (CA INDEX NAME)



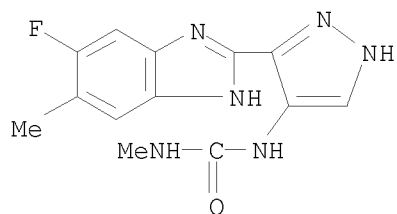
RN 518989-50-9 CAPLUS

CN 1-Piperidinecarboxamide, N-[3-(6-fluoro-5-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



RN 518989-51-0 CAPLUS

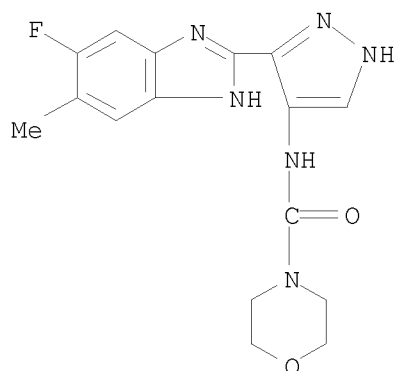
CN Urea, N-[3-(6-fluoro-5-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-N'-methyl- (CA INDEX NAME)



RN 518989-52-1 CAPLUS

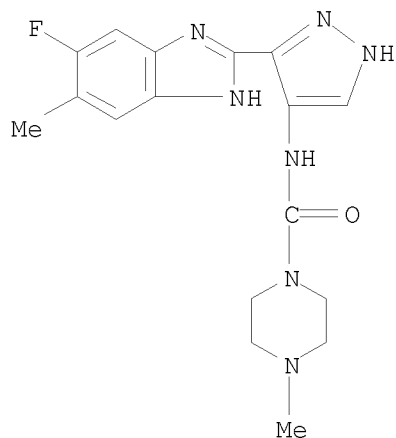
CN 4-Morpholinecarboxamide, N-[3-(6-fluoro-5-methyl-1H-benzimidazol-2-yl)-1H-

pyrazol-4-yl]- (CA INDEX NAME)



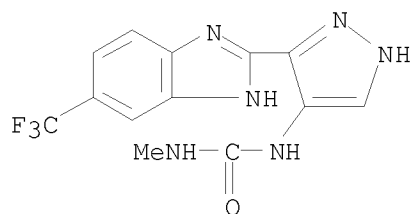
RN 518989-53-2 CAPLUS

CN 1-Piperazinecarboxamide, N-[3-(6-fluoro-5-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-4-methyl- (CA INDEX NAME)



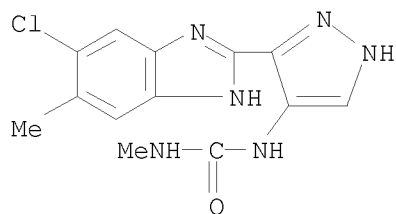
RN 518989-54-3 CAPLUS

CN Urea, N-methyl-N'-[3-[6-(trifluoromethyl)-1H-benzimidazol-2-yl]-1H-pyrazol-4-yl]- (CA INDEX NAME)



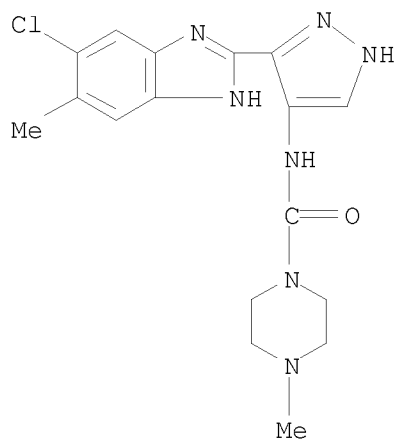
RN 518989-55-4 CAPLUS

CN Urea, N-[3-(6-chloro-5-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-N'-methyl- (CA INDEX NAME)



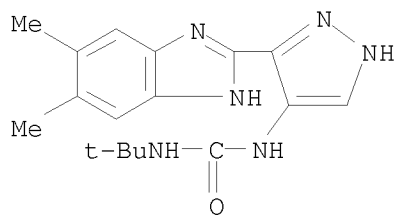
RN 518989-56-5 CAPLUS

CN 1-Piperazinecarboxamide, N-[3-(6-chloro-5-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-4-methyl- (CA INDEX NAME)



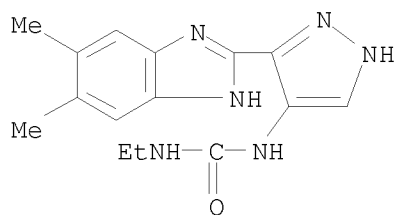
RN 518989-57-6 CAPLUS

CN Urea, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-N'-(1,1-dimethylethyl)- (CA INDEX NAME)



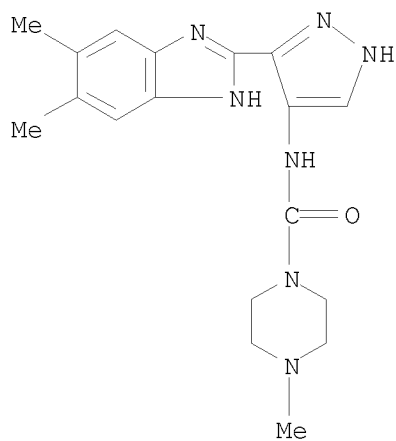
RN 518989-58-7 CAPLUS

CN Urea, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-N'-ethyl-
(9CI) (CA INDEX NAME)



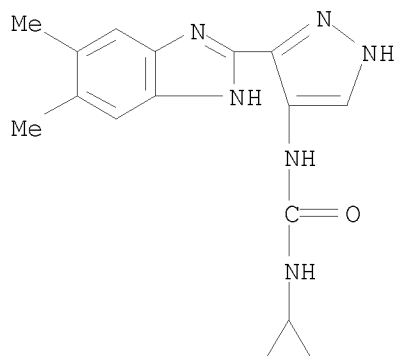
RN 518989-59-8 CAPLUS

CN 1-Piperazinecarboxamide, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-
pyrazol-4-yl]-4-methyl- (CA INDEX NAME)



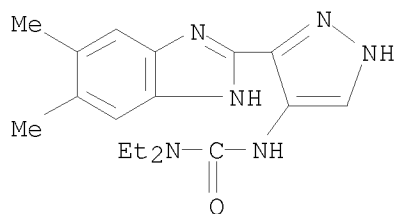
RN 518989-60-1 CAPLUS

CN Urea, N-cyclopropyl-N'-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-
yl]- (CA INDEX NAME)



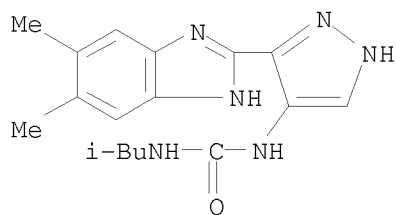
RN 518989-61-2 CAPLUS

CN Urea, N'-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-N,N-diethyl- (CA INDEX NAME)



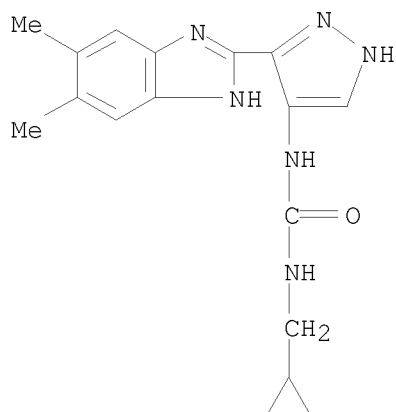
RN 518989-62-3 CAPLUS

CN Urea, N-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]-N'-(2-methylpropyl)- (CA INDEX NAME)



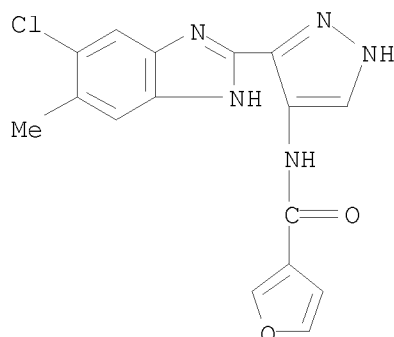
RN 518989-63-4 CAPLUS

CN Urea, N-(cyclopropylmethyl)-N'-[3-(5,6-dimethyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)

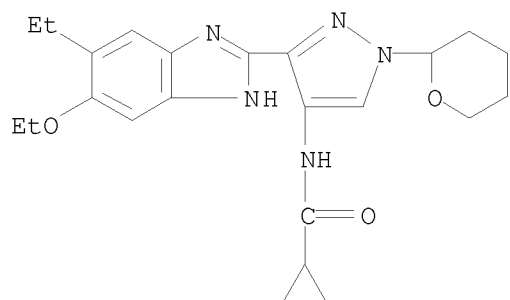


RN 518990-82-4 CAPLUS

CN 3-Furancarboxamide, N-[3-(6-chloro-5-methyl-1H-benzimidazol-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)

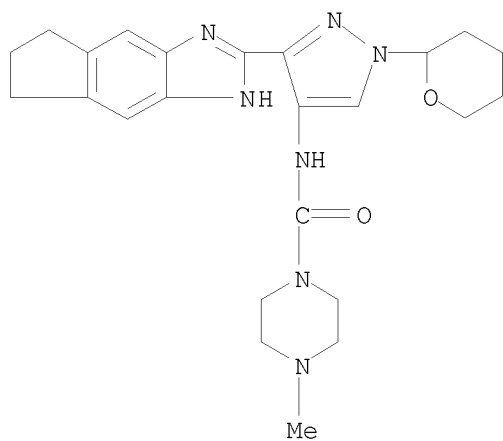


IT **518989-03-2P**, Cyclopropanecarboxylic acid
 [3-(5-ethoxy-6-ethyl-1H-benzimidazol-2-yl)-1-(tetrahydropyran-2-yl)-1H-pyrazol-4-yl]amide **518989-07-6P**,
 4-Methylpiperazine-1-carboxylic acid
 [3-(1,5,6,7-tetrahydro-1,3-diaza-s-indacen-2-yl)-1-(tetrahydropyran-2-yl)-1H-pyrazol-4-yl]amide **518989-09-8P**,
 1,1-Dimethyl-3-[3-(1,5,6,7-tetrahydro-s-indacen-2-yl)-1-(tetrahydropyran-2-yl)-1H-pyrazol-4-yl]urea **518989-12-3P**, Cyclopropanecarboxylic acid
 [3-(6-ethoxy-5-fluoro-1H-benzimidazol-2-yl)-1-(tetrahydropyran-2-yl)-1H-pyrazol-4-yl]amide **518989-14-5P**,
 Tetrahydropyran-4-carboxylic acid [3-(6-ethoxy-5-fluoro-1H-benzimidazol-2-yl)-1-(tetrahydropyran-2-yl)-1H-pyrazole-4-yl]amide **518989-16-7P**,
 Morpholine-4-carboxylic acid [3-(6-ethoxy-5-fluoro-1H-benzimidazol-2-yl)-1-(tetrahydropyran-2-yl)-1H-pyrazol-4-yl]amide **518989-18-9P**,
 Piperidine-4-carboxylic acid [3-(6-ethoxy-5-fluoro-1H-benzimidazol-2-yl)-1-(tetrahydropyran-2-yl)-1H-pyrazol-4-yl]amide **518989-20-3P**,
 3-[3-(6-Ethoxy-5-fluoro-1H-benzimidazol-2-yl)-1-(tetrahydropyran-2-yl)-1H-pyrazol-4-yl]-1,1-diethylurea **518989-25-8P**,
 3-[3-(5-Difluoromethoxy-1H-benzimidazol-2-yl)-1-(tetrahydropyran-2-yl)-1H-pyrazol-4-yl]-1,1-diethylurea **518989-27-0P**,
 Piperidine-1-carboxylic acid [3-(5-difluoromethoxy-1H-benzimidazol-2-yl)-1-(tetrahydropyran-2-yl)-1H-pyrazol-4-yl]amide
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of benzimidazoles and analogs and their use as protein kinase inhibitors)
 RN 518989-03-2 CAPLUS
 CN Cyclopropanecarboxamide, N-[3-(6-ethoxy-5-ethyl-1H-benzimidazol-2-yl)-1-(tetrahydro-2H-pyran-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



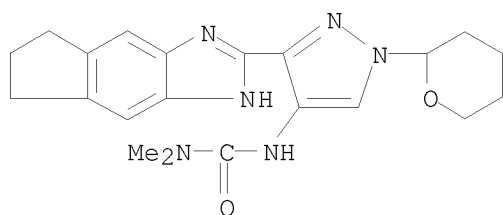
RN 518989-07-6 CAPLUS

CN 1-Piperazinecarboxamide, 4-methyl-N-[3-(1,5,6,7-tetrahydroindeno[5,6-d]imidazol-2-yl)-1-(tetrahydro-2H-pyran-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



RN 518989-09-8 CAPLUS

CN Urea, N,N-dimethyl-N'-[3-(1,5,6,7-tetrahydroindeno[5,6-d]imidazol-2-yl)-1-(tetrahydro-2H-pyran-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)

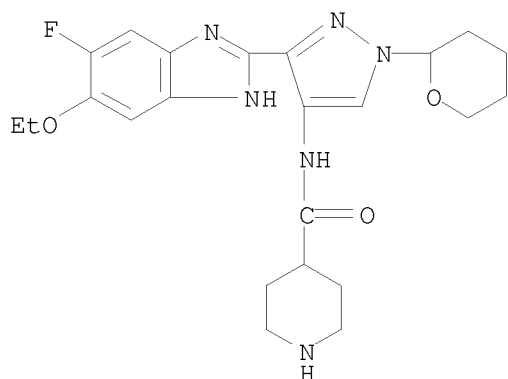


RN 518989-12-3 CAPLUS

CN Cyclopropanecarboxamide, N-[3-(5-ethoxy-6-fluoro-1H-benzimidazol-2-yl)-1-(tetrahydro-2H-pyran-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)

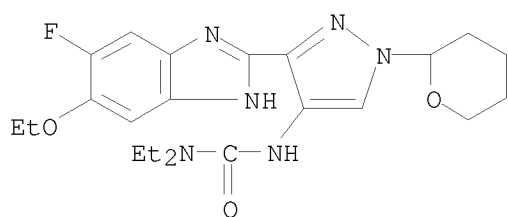
RN 518989-18-9 CAPLUS

CN 4-Piperidinecarboxamide, N-[3-(5-ethoxy-6-fluoro-1H-benzimidazol-2-yl)-1-(tetrahydro-2H-pyran-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)



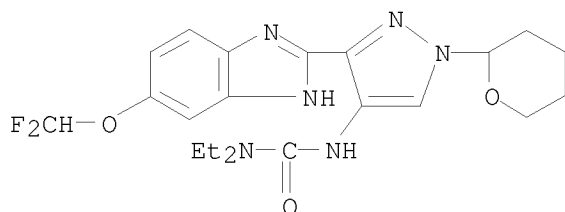
RN 518989-20-3 CAPLUS

CN Urea, N'-[3-(5-ethoxy-6-fluoro-1H-benzimidazol-2-yl)-1-(tetrahydro-2H-pyran-2-yl)-1H-pyrazol-4-yl]-N,N-diethyl- (CA INDEX NAME)



RN 518989-25-8 CAPLUS

CN Urea, N'-[3-[6-(difluoromethoxy)-1H-benzimidazol-2-yl]-1-(tetrahydro-2H-pyran-2-yl)-1H-pyrazol-4-yl]-N,N-diethyl- (CA INDEX NAME)



RN 518989-27-0 CAPLUS

CN 1-Piperidinecarboxamide, N-[3-[6-(difluoromethoxy)-1H-benzimidazol-2-yl]-1-

(tetrahydro-2H-pyran-2-yl)-1H-pyrazol-4-yl]- (CA INDEX NAME)

